Given an array of integers.

Your task is to implement a function with following prototype:

int equalSumIndex(vector<int>& nums);

The function returns the smallest index i such that the sum of the numbers to the left of i is equal to the sum of the numbers to the right.

If no such index exists, return -1.

**Note:**

- The iostream and vector libraries have been included and namespace std is being used. No other libraries are allowed.

- You can write helper functions.

**For example:**

| **Test** | **Result** |
| --- | --- |
| vector<int> nums {3, 5, 2, 7, 6, 4};  cout << equalSumIndex(nums); | 3 |